

returned well pleased with our excursion, and with 126 eggs belonging to 13 different species, some of them treasures in their way.

How the time flies! The great bankers' cases, double cross-actions, with heaven only knows how many reserved pleas, have come and gone, and the worthy gentlemen have, to the intense disgust of their respective counsel and attorneys, been induced by "the presence" (your humble servant) to cease fighting about and spending their substance on nothing, and have mutually made all the little concessions necessary, and signed a full and complete quittance and release so thoroughgoing and simple that I will trouble the sharpest of our attorneys to get up any new case out of the old material; and I, after twelve hours on the bench, have sat far into the night, growing less and less tired every hour, scribbling this story of our morning's birds'-nesting, hoping that, perhaps, some desk-tied ornithologist like myself, "seeing, may take heart again."

II.—*The Bird-Stations of the Outer Hebrides.* By HENRY JOHN ELWES, Lieut. and Capt. Scots Fusilier Guards, F.Z.S.

I BELIEVE that no part of Great Britain is so interesting, and at the same time so little known to ornithologists in general, as the Outer Hebrides, or the "Long Island," as they are called; for with the exception of the late John Macgillivray, who spent the summer of 1840 there*, and of the late Sir William Milner, who visited St. Kilda and Harris in 1847†, no one, so far as I know, has, within the present century, published any notice of the birds of those most interesting islands.

Mr. Robert Gray, of Glasgow, however, has for several years been accumulating notes and observations on the ornithology of the West Highlands, and, it is to be hoped, will shortly publish a work which cannot fail to be highly valued by all who take an interest in the natural history of our own country.

* "Notes on the Zoology of the Outer Hebrides. By John Macgillivray." Ann. & Mag. Nat. Hist. viii. pp. 7-16.

† "Some Account of the People of St. Kilda, and of the Birds of the Outer Hebrides. By W. M. E. Milner," Zoologist, pp. 2054-2062.

The late Professor William Macgillivray, though he resided some time in Harris, where he, in his younger days, was parish schoolmaster, does not seem to have made so good a use of his opportunities as might have been expected ; for he does not mention some of the most interesting birds which are found there, and, though living for some years in sight of St. Kilda, never paid a visit to that extraordinary island. This apparent negligence on the part of our countrymen may be accounted for by the unusual difficulty of travelling among these islands ; whilst St. Kilda, though not more than a hundred and twenty miles from the mainland of Scotland, is surrounded by such a stormy and dangerous sea, that it is very rarely visited, except by a smack which goes annually from Skye to bring away the produce of the island. I was very anxious to investigate some of John Macgillivray's statements with regard to the birds of the Hebrides, as, though they have been generally received without doubt, I could not help thinking that he must have been mistaken in one or two points.

First, as to the breeding of the Pink-footed Goose, which he stated to be of common occurrence on the small islands in the Sound of Harris. To mistake one species of Wild Goose for another is not so difficult, as is shown by the fact that even so good an ornithologist as Selby had previously been in error on this subject, having supposed the Goose he found breeding in Sutherland to be the Bean-Goose ; and William Macgillivray had also called the Goose of Harris the Bean-Goose*.

When John Macgillivray wrote his paper, he was not more than one-and-twenty years of age, and no doubt was but imperfectly acquainted with the distinctions between the different species of grey Geese. Now, as *Anser brachyrhynchus* had only been recognized by British ornithologists as a new species a short time before†, he may very easily have fallen into error

* Cf. Ibis, 1865, p. 441.

† The distinctness of this species was first established by Baillon, in 1833 (Mém. Soc. d'émulat. Abbeville, p. 74). Six years afterwards Mr. Bartlett described it as new, under the name of *A. phœnicopus* (P. Z. S. 1839, p. 3) ; but later in the same year Baillon (P. Z. S. 1839, p. 124) identified the bird described by Mr. Bartlett with his own. Yarrell soon after included it in his work (Br. B. iii. p. 64, part xxvii. November 1841).

about it, more particularly as he does not say that he obtained specimens of the bird.

I think that there can be little doubt that the only Goose which breeds in any part of Scotland is the Greylag (*Anser erus*), which is found in many parts of Sutherland, Rosshire, and even so far south as Jura, though in winter it is not so common as the Bean and White-fronted Goose. I saw a considerable number of wild Geese during the past summer in different parts of the "Long Island," and have not the least doubt that they were all *Anser ferus*, as the light bluish-grey shoulders form such a conspicuous mark that I do not think any one who knew it could mistake an adult bird.

The best evidence, however, in favour of this is that of a gentleman, Mr. J. Macdonald of Scolpig, who has resided all his life in these islands, where it is a common custom to rear Geese from eggs laid by wild birds. He assures me that none of these eggs have ever produced any but pure Greylags, with the nail of the bill *white*.

The greater number of the Geese I saw were not breeding, and remained in pairs or flocks all May, when I saw as many as thirty together. These could not have been all Ganders, as the male Goose remains near his mate when sitting, and helps her to bring up the young ones, which are all hatched by the end of May. When the young brood is pursued by a boat, the mother sinks her body very low in the water, and swims away with the Goslings, whilst the Gander flies round with loud cacklings.

The Goosander (*Mergus castor*) is another bird which was stated by John Macgillivray to breed in the Long Island; but I have no doubt whatever that he was mistaken in this case also, and was probably led into the error by the different stages of plumage of the Merganser (*Mergus serrator*), which is very common all over the West Highlands. I took the greatest pains to discover the Goosander, and explored in a canoe, which I took on purpose, every loch and arm of the sea where it was likely to be found, examining with a telescope every bird about which I had any doubt; and as I remained two months in the "Long Island," I hardly think the species could have escaped my observation if it had been there.

I have been several times shown eggs said to be those of the Goosander ; but they never had that creamy whiteness which its eggs from Scandinavia always have ; and I never saw a specimen of the bird killed in the Hebrides, though no doubt they occur sometimes in winter.

There are several rocks and islets on the north and west coast of Scotland which are interesting to the naturalist on account of the myriads of sea-fowl by which they are frequented ; and as they are almost unknown, except to the fishermen of the neighbouring coasts, it will be as well to mention them.

First are two rocks lying about forty miles west of Stromness in Orkney, which are marked in the maps as Stack Island and Sule Island, but called by the Orkney men the Stack and Skerry. The Stack is a high rock four miles south-west of the Skerry, and is the breeding-place of a large colony of Gannets (*Sula bassana*). It is sometimes confounded with another Sule-skerry, sixty miles west of it, which I shall presently describe. The Stack and Skerry are very seldom visited, owing to their distance and the difficulty of landing. Besides the Gannets, there are great numbers of the common rock-birds ; and on the Skerry, seals are very numerous in calm weather.

Rona is an island about three-quarters of a mile long, lying sixty miles north-north-east of the Butt of Lewis, and is now uninhabited, though it was tenanted in former days by five or six families, whose existence must have been far more wretched and lonely than that of the St. Kildians. It is surrounded by cliffs about three hundred feet high, and is pastured by two hundred sheep belonging to a farm in Lewis. I was unable to visit this isle, as no boatmen could be persuaded to risk the danger of the voyage except for a larger sum than I was disposed to give. I do not think any birds would be found there except the common sorts, as I inquired particularly about them from the inhabitants of Ness, who go there every year to fleece the sheep.

Ten miles west of Rona is Suleskeir, which is erroneously named in most maps North Barra ; and on this rock it has been conjectured that the Great Auk might formerly have bred. I

think, however, that if it had done so, it would have been mentioned by Martin or Sir George Mackenzie, of Tarbat, who gave an account of Rona and Hirta to Sir R. Sibbald, and was, as well as Martin, acquainted with the Great Auk.

Donald Monro, High Dean of the Isles, who wrote a 'Description of the Hybrides' in 1594, gives an account of Suleisker, in which is the earliest mention of the Eider-Duck in Great Britain that I know of. He says, "Be sixteen myle of the sea to this ile [Ronay], towards the west, lyes ane ile callit Suilskeray, ane myle lang, without grasse or hedder, with highe blacke craigs, and blacke foughe thereupon part of them. This ile is full of wylde foulis, and quhen foulis hes ther birdes, men out of the parochin of Nesse in Lewis use to sail ther, and to stay ther seven or aught dayes, and to fetch hame with them ther boitt full of dray wyld foulis, with wyld foulis fedders. In this ile ther haunts ane kind of foule callit the colk*, little lesse nor a guise, quha comes in the *rer* to the land to lay hir eggis, and to clecke hir birdes quhill she bringe them to perfytness, and at that time hir fleiche of fedderis falleth of her all hailly, and she sayles to the mayne sea again, and comes never to land quhill the zier end againe, and then she comes with hir new fleiche of fedderis. This fleiche that she leaves zierly upon hir nest hes nae pens in the fedderis, nor nae kind of hard thinge in them that may be felt or graipit, bot utter fyne downes."†

This rock is still visited annually by a boat from Ness, which goes in September, for the sake of the down and feathers of the young Gannets, at that time nearly ready to fly. Several thousands are usually killed, and are considered very good eating, as they are extremely fat and as large as the old ones.

The Shiant Isles are a small group lying in the Minch, about six miles from the coast of Lewis. They are frequented in summer by immense numbers of sea-birds, especially Puffins (*Fratercula arctica*) and Kittiwakes (*Rissa tridactyla*), with which two species the sea was covered for more than a mile when I passed the islands in the beginning of July. There is

* "Colk" is the Gaelic name now used in Lewis and Harris for the Eider.

† 'Miscellanea Scotica.' Glasgow: 1818, vol. ii. p. 153, 12mo.

a celebrated eyrie of the White-tailed Eagle (*Haliaetus albicilla*) here, which has been used from time immemorial, and is mentioned by Martin, who wrote nearly two hundred years ago. I think it is as perfectly inaccessible as any nest can be, owing to the way in which the rock overhangs, and, if the birds are not destroyed, will remain in use for centuries.

The Flannan Isles are a group of six * small islets, about twenty miles west of Uig in Lewis, and form another favourite resort of sea-birds in the breeding-season, especially Puffins and Eiders. The Gannet, however, does not breed here, as is stated in some works.

Haskeir is a small rock about twelve miles west of North Uist; and on it I found a large colony of *Sterna arctica* breeding, though at a considerable distance from their feeding-grounds. One of the smaller rocks near it is the resort of all the Cormorants for many miles, which are probably attracted by the solitude of the place. I found that many of their nests contained fresh eggs in July, though no one had landed there for some months; and as there were many young ones nearly fledged, I presume they occasionally rear two broods. Haskeir is the principal resort of the great seals (*Halichærus griseus*), which breed there in October and November, and were formerly killed with clubs, every year, as they lay on the rock with their young ones. This wholesale slaughter, to which the men of Uist looked forward with great eagerness, has now been stopped by the proprietor of that island, Sir John Orde, as the seals were in danger of being totally exterminated, and it is almost the only place where the species breeds. I noticed here that none of the nests of *Sterna arctica* contained more than two eggs, which was also the case in other places I visited, while *Sterna fluviatilis*, which is also common in the Hebrides, usually lays three eggs.

South of Haskeir there is no great breeding-place for sea-birds, except the Isles of Barra, which are at the extreme south of the Outer Hebrides. Mingalay and Berneray, which are the two best worth seeing, surpass by far any place in Great Britain,

* Though another name for this cluster of rocks is the "Seven Hunters," there are only six considerable ones.

except St. Kilda, both in the magnificence of their rock scenery, and in the number of birds by which they are inhabited.

In Berneray (or Barra Head, as it is generally called, to distinguish it from the numerous other islands of the same name) I had the good fortune to stay for four days in the height of the breeding-season; and as the only account of the place ever published, so far as I know, is a short notice of it by Professor Magillivray (Br. B. v. p. 351), a few more words about it may perhaps be interesting.

The cliffs which form the south coast of the island culminate in a point at the south-west, on the extreme edge of which is built the lighthouse, at an elevation of nearly seven hundred feet. On both sides of the lighthouse is a deep chasm, reaching down to the sea; and the whole of these rocks, for more than a mile, are as thickly crowded with sea-birds as they can well be.

It was the grandest sight I ever experienced, to look out of the window of the lighthouse on a very stormy day and see oneself hanging, as it were, over the ocean, surrounded on three sides by a fearful chasm, in which the air was so thickly crowded with birds as to produce the appearance of a heavy snowstorm; whilst the cries of these myriads, mingled with the roar of the ocean and the howling of the tremendous gusts of wind coming up from below as if forced through a blast-pipe, made it almost impossible to hear a person speak.

The most abundant species were the Puffin, Razorbill, Guillemot, and Kittiwake, which I have named in the order in which they tenanted the rocks, the Puffins making their burrows from the top to about halfway down, whilst the Guillemots and Kittiwakes crowded on ledges almost within reach of the spray. There are only three families on Berneray besides the lighthouse-keepers; and though they do not look on birds with the same interest as the St.-Kildians do, yet they kill a great number as food for themselves and the crews of the boats which come from Islay to fish for cod and ling.

Their favourite method of fowling is quite different from that pursued anywhere else, and is highly successful, as I have known a man get six hundred sea-birds in six or eight hours. On a very windy day he climbs about halfway down the cliff,

and seats himself firmly on a projecting point of rock, armed with a pole resting, end downwards, across the thigh. As the birds fly backwards and forwards they are driven by the wind within a few feet of his seat, and are knocked off their balance by an upward blow of the pole. When this is properly done the neck is broken, and the birds fall, with the force of the wind, almost into the fowler's lap; but they often recover themselves and fly away. Razorbills and Puffins form the great proportion of the bag; but there are also a few Guillemots killed in this way, though they do not come so close as the others, and the Kittiwakes keep far below. I sat several times with a man who was killing birds in this way, and counted, as well as possible, the number of Ringed Guillemots which passed by. I found that they were in the proportion of about one to ten or twelve, which agrees with the observations of others on Handa Island and Ailsa Craig. I took several eggs, on which I actually saw a Ringed bird sitting, and found they vary as much as the others, though more were marked with streaks than with blotches. I found considerable difference in the size of the Puffins here, one of the largest of which had a beak so big that at first it made me almost doubt whether *Fratercula glacialis* could be a good species, more especially when I found it was fully as large as a specimen from Grimsey Island, near Iceland, kindly lent me by Mr. Tristram. All my doubts, however, were dispelled when I saw two specimens brought back from Spitsbergen by a brother-officer this summer, which were at least a fourth larger than either of the others.

One day I crossed over the Sound to Mingalay, where a landing is by no means easy, owing to the tremendous sea which rises in the narrow channel separating the two islands. To give some idea of the height to which the waves rise in winter, I may say that a green sea lately came right over an island in the Sound, which looked as if it must be nearly one hundred feet high, washing away all the sheep on it, though they had hitherto been considered perfectly safe. On the west side of Mingalay the cliffs are even more stupendous than at Barra Head, rising in one place to over eight hundred feet, and are so smooth and perpendicular that even the Kittiwakes could hardly

find a resting-place. The same birds are found here as in Berneray, with the addition of the Stormy and Fork-tailed Petrels (*Procellaria pelagica* and *P. leachi*), a few of which breed in holes and cracks in the dry peat on the top of the cliffs. I did not find any eggs, but have no doubt that they do breed, as the natives distinguished the latter species by its forked tail, calling it "Gobhlan-goidhe," which expresses that peculiarity in Gaelic, and is used for the Swallow in some parts of the Highlands. We found the names of birds here, as at St. Kilda, very different from those used in other islands, and, on returning to the village of Mingalay, took them down from an old man, who had in his day been one of the best fowlers in the island. The Razorbill is called "Dubheanach," the Guillemot "Langaigh," the old Kittiwake "Crahoileag," and the young one (which is a favorite dish) is called "Seaigire," the Stormy Petrel is called "Amhlaig," and the Manx Shearwater "Scaib." This bird was formerly very common, and the young ones, which were called "Fachach," were so highly esteemed that a barrel of them formed part of the rent paid by each crofter in Mingalay to the Macneills of Barra. About a hundred years ago, however, the Puffins, which before were not numerous, began to increase very much, and drove the Shearwaters from the holes which they occupied in the cliffs; and now they have completely supplanted them, so that only a few pairs of Shearwaters are left in the island of Pabbay, which is next to Mingalay. The Shearwater seems to be on the decrease in most of its other breeding-places, though I have never heard any reason assigned for the circumstance. We found a few pairs of Black Guillemots breeding in the low caves and rocks of Mingalay and Berneray; but the eggs are difficult to get at. So far as I have seen, they are always two in number, and are placed in deep cracks and holes, but never in high cliffs, like those of the allied species.

To pay a visit to St. Kilda (or Hirta, as it is called by the natives) was one of the principal objects of my tour this summer, as this extraordinary isle, which is more celebrated for its birds than any other place in Great Britain, had not been visited by any naturalist for twenty years, and, indeed, is as little

known to most people as if it were an island in the Pacific, instead of a part of our own country.

It is not the distance which makes St. Kilda so difficult of access (it is not more, as I have already said, than sixty miles from Harris) ; but the want of a good anchorage, and the never-ceasing swell which beats on its precipitous shore, even in the calmest weather, form such serious impediments to effecting a landing, that, in many seasons, it would be impossible to get there before the middle or end of June.

An intending visitor to St. Kilda must take his choice of two evils :—either to go in a small boat, which, on his arrival, can be hauled up on the rocks, though most people would hardly venture three-score miles into the Atlantic in such a craft; or to go in a larger vessel, which can lie in the bay at anchor so long as the wind is light, but would be obliged to put to sea immediately if the weather became bad, as the anchorage is very exposed and dangerous. I had made arrangements for a smack to take me there; but the spring and summer of 1868 were so unusually stormy that I should have failed in the expedition if it had not been for the kindness of Capt. Bell, of H.M.S. ‘Harpy,’ a paddle-steamer, which was going to see how the St.-Kildians were faring, since they had been cut off from communication with the other islands for nearly nine months.

About one o’clock, A.M., on the 22nd of May, the ‘Harpy’ got under way from the Sound of Taransay, and, passing the Islet of Gasgeir, which is frequented by numbers of the Great Seal, arrived about nine pretty close under the cliffs of Boreray, which is five miles north of St. Kilda itself. As we pitched over the swells which rolled in from the west, long strings of Gannets kept constantly passing us on their way to the Minch. They have to travel in this way from fifty to a hundred miles every day to their feeding-ground, as the herrings do not rise near the surface of the water until they get inside the “Long Island.” Much of the seaweed they use in their nests is also brought in the same manner, as the rocks of Boreray do not afford sufficient for such multitudes of birds as breed there*.

* The insufficiency of material induces the Gannets to plunder each other, and Martin quaintly describes an instance he witnessed :—“One of

The Gannets do not breed on the Island of St. Kilda at all, but only on Boreray and the adjacent rocks, called Stack-an-Armin and Stack-Lii. These are two almost perpendicular stacks, of great height, with flattish tops, which are so crowded with Gannets that at a distance they look as if covered with snow. The ascent of these rocks would be impossible to any one but a St.-Kildian; and even to him it is a matter of great difficulty, and can only be effected in the calmest weather. Then a boat is rowed as near as they dare go, and the most active man, jumping out with a rope, scrambles up a short distance and makes it fast to an iron hook, which was fixed in the rock by some of the ancient inhabitants, and without which it would now be impossible to ascend. Four or five of the best climbers then help each other up to the top, where they kill as many of the young Gannets as are required, and throw them into the sea. This generally takes place in September, when the young are very fat, and heavier than the old birds. They are called "Guga" by the natives, whilst the old ones have the same name (Súlair) as is used elsewhere, and expresses their extremely sharp sight*.

We were unable to land on Boreray, owing to the tremendous swell, and were obliged to content ourselves with a view of its immense crags from below. It is nearly as high as St. Kilda, being 1072 feet, and is even more precipitous, as there is hardly a level spot on it.

Until we actually entered the Bay of St. Kilda, very few birds, except Gannets and Gulls, were seen; and I should not have known that the Fulmars were there, until I came to the

them finding his Neighbour's Nest without the Fowl, lays hold on the Opportunity, and steals from it as much Grass as he could conveniently carry off, taking his flight towards the Ocean; from thence he presently returns, as if he made a foreign Purchase, but it does not pass for such. For the Owner had discovered the Fact, before the Thief had got out of sight, and too nimble for his Cunning, waits his Return, all armed with Fury, and engages him desperately; this bloody Battle was fought above our Heads, and proved fatal to the Thief, who fell dead so near our Boat, that our Men took him up, and presently dressed and eat him; which they reckoned as an Omen of good success in the Voyage."—*Voy. to St. Kilda*, p. 8.

* Cf. *Ibis*, 1866, pp. 13, 14.

cliffs where they breed, as they move about very little by day, being very nocturnal in their habits, like the other Petrels. They are very seldom seen on the coasts of the "Long Island," except after severe gales, or on dark foggy days, when they wander further away.

Soon after we entered the bay the people began to appear; and some of the men came off to the steamer in a large, clumsy boat, the only one, however, they have in which to go to the adjacent isles. Some years ago Capt. Otter, R.N., who was employed for many years in surveying the district, got them a large and well-found boat, hoping thereby to encourage deep-sea fishing, which is totally neglected on account of the bad weather which so often prevails. This boat, unfortunately, in attempting to cross to Harris, was lost on some rocks called the Glorigs of Taransay, and all her crew, including seven or eight of the best men in the island, were drowned. This sad accident, together with the casualties which take place every now and then from the carelessness of the climbers, has very much reduced the able-bodied population of the island; and there are not more than twenty men now who can pursue their occupations on the rocks. The population at present is about seventy, and is not increasing, as many of the children die of a disease which appears to be almost peculiar to the place, and commonly carries them off between the fifth and eighth days.

The men were all stout and hardy, well dressed in homespun cloth; and the younger ones were pleasant, merry fellows, and good companions during my stay, though none of them could speak a word of English.

On landing we were met by the minister, Mr. Mackay, who appeared very glad to see any one, as may well be imagined. Strange to say, he did not seem to take any interest in, or to know much about the birds, though he has been two years among people whose thoughts are more occupied by birds than anything else, and who depend principally on them for their living. I showed a picture of the Great Auk, which Mr. J. H. Gurney, jun., had kindly sent me, to the people, some of the oldest of whom appeared to recognize it, and said that it had not been seen for many years; but they were so excited by the

arrival of strangers, that it was impossible to get them to say more about it; and though Mr. Mackay promised to take down any stories or information about the bird that he could collect, when they had leisure to think about it, he has not as yet sent me any. I do not think, however, that more than two or three examples are at all likely to have been seen in the last forty years, as Mr. Atkinson, of Newcastle, who went there in 1831, does not say a word about it in his paper*, beyond mentioning the name, and neither John Macgillivray, who visited the place in 1840, nor Sir W. Milner, says that any specimens had been recently procured. I believe that Bullock was also there about 1818; and as he had not long before met with the species in Orkney, there is little doubt he would have mentioned it to somebody if he had heard of any having been recently procured at St. Kilda.

I made every inquiry about this bird on the north and west coasts of Lewis, and showed pictures of it to the fishermen; but all agreed that nothing of the sort had ever been seen since they could remember. Indeed the only specimen of which we know for certain that has been seen in the present century is the one that Dr. Fleming had in 1821, which was captured alive by Mr. Maclellan, of Scalpa, somewhere off St. Kilda.

The first thing which strikes one on entering the houses here is the strong smell of Fulmar which pervades everything; though much of the filth which formerly filled them is now cleared out, yet they are by no means pleasant to one who is not accustomed to the smell.

Soon after landing, I started off with some of the best cragsmen to the cliffs at the north side of the island, which form the principal breeding-places of the Fulmar. On reaching the top of Conachan, which is the highest hill in the island, we came quite suddenly on a precipice which, according to the measurement of Capt. Otter, is no less than 1220 feet high. The whole of this immense face of rock was so crowded with birds, of which Fulmars and Puffins made up the greater number, that the sea was seen far below as if through a heavy snow-storm; indeed the birds which were flying in front of the cliff almost obscured the view for a little distance. All the ledges near the top were

* Trans. Nat. Hist. Soc. Newcastle-upon-Tyne, 1832.

covered with short turf full of holes, in which the Fulmars were sitting on their eggs, with the head and part of the body exposed outside. In some cases they were quite concealed ; but generally the soil was too thin for them to make more than a slight excavation. Thousands of Fulmars were flying backwards and forwards, with a soft owl-like flight ; and though the air was full of them, hardly one ever came over the top of the cliff.

After having admired the scene for some time, I prepared to descend—an undertaking which, though dangerous from the looseness of the rock, was by no means so difficult as in some places which I had previously attempted. The usual way in which the ropes are managed is this : one is fastened under the arms, and paid out by the man above as the climber descends ; and another is held or fastened to a stake above, and thrown over the cliff, so that the man who is descending can use it to take his weight off the other rope. In this way two men can help each other so as to get almost anywhere. The natives, from constant practice, have wonderful judgment in selecting the easiest places ; and if they were always careful, an accident would be of rare occurrence : but the younger men are too fond of casting off the rope and trusting to their own skill ; in this way three lives have been lost in the last few years. It also often happens that stones become dislodged and fall on the head of the climber, who may be unable to avoid them ; and in this way I had a very narrow escape while descending the cliffs on the south side of the island on another occasion.

On arriving at the first ledge, where the Fulmars were, I had no difficulty in collecting the eggs, which were laid in small holes amongst the stones, or in the turf, on a few bits of grass or stems of the sea-pink, which, however, were so slight as hardly to keep the egg from the bare ground. The birds were very tame, and sometimes allowed themselves to be caught with the hand. The eggs were quite fresh ; and all that I took on this part of the cliff were distinctly marked with reddish-brown dots and freckles, which did not appear to have been produced by any foreign substance, as the shell was otherwise clean. I cannot account for these marks in any way, as all the eggs from other places were spotless.

After I had collected a few, I came up and got one of the natives to go down to show us his way of catching birds. He took a rod about ten feet long, with a horsehair noose at the end, and slipped this cleverly over the heads of the Fulmars, whose necks he then broke and tied them in bunches of five to the end of the rope. I asked him why he killed so many, as I only wanted a few; and he said that if the egg was taken it was best to catch the bird also, as she would lay no more that year.

The Fulmar when caught vomits from its mouth (and not from its nostrils, as is usually stated) nearly a wine-glassful of clear yellow oil, with minute green particles floating in it. This oil has a very strong smell, and when kept becomes of a dark red colour, like raspberry vinegar. The St.-Kildians collect a large quantity of this oil, by making the birds vomit it into the dried gullets of Solan Geese, which are hung on strings when full; and a good deal of grease is also obtained by boiling down the young Fulmars, which are one mass of fat.

All the Fulmars I caught on the nest were females; and I remarked that the eye is not yellow, as is generally stated in books, but black, or dark brown. The stomach is filled with an oily fluid, in which are the horny mandibles of some Cuttle-fish, and a greenish substance, which I believe is sorrel, as that plant grows in great abundance on the rocks, and, the people say, is probably taken by the birds to correct the oiliness of their diet. The feathers of the breast are unusually thick and close; and there was a bare hollow place on the stomach, of the same size and shape as the egg.

After remaining a time to admire the view, which alone would fully repay one for the journey to St. Kilda, I returned to the village laden with the spoils. The whole island is covered with little stone hovels, which are built partly as a protection for the sheep during the gales, and partly to dry the turf, which is used for burning, as there is no real peat in the island. The sheep are of a peculiar sort, not unlike those which were kept by the crofters in most of the Hebrides before the introduction of the improved breeds, and have very fine wool, which is sometimes of a light-brown dun colour. This sort, however, is not very common; and the wool is in great request, as the

rent is paid principally in wool and feathers. The factor of the island, who lives in Skye, comes every year in June, and remains until August or September, taking away with him all the spare produce of the island; and as this is the only regular communication with the rest of the world, the people depend on him for everything which they cannot make themselves. The present proprietor, Mr. Macleod, is a very liberal landlord, and the condition of the islanders has improved immensely during the last thirty years, so that they are now much better housed and fed than most of the Hebridians.

After visiting a few of the houses, and examining all the objects of interest, I returned to the 'Harpy' to deposit my birds and eggs, and found most of the older men collected on board begging for tobacco, sugar, and other things, though they did not seem very anxious to give us anything in exchange.

Some of the man-of-war's men had been collecting eggs on shore; and this excited the indignation of the older men, who considered it in the light of stealing their property. After we had pacified them with some small presents of tobacco and sugar, I showed them the pictures in my 'Yarrell,' among others pointing out the Fork-tailed Petrel. This, however, they did not seem to distinguish by any peculiar name from the Stormy Petrel, which is common enough, and is here called "Assilag." The Petrels are too small to be of any use for food, and are probably not much seen by the natives, especially as they only come out at night; but the pictures of all the other birds which are found here were at once recognized, and the Gaelic names given. The Kittiwake, which is by far the most common of the *Laridæ*, is called "Ruideag;" the Guillemot, "Lamhaidh" (pronounced "Lavie"), and the Puffin, "Bougir," are also in countless numbers, and, as food, are esteemed next to the Fulmar and Gannet. The name "Fulmar," which is pronounced here as a word of three syllables, "Ful-a-mair," is the only case I know of, besides the Ptarmigan and Capercally, in which our common English name is taken from the Gaelic.

The Shearwater (*Puffinus anglorum*), which is here called "Scrapire," is by no means plentiful, and only breeds on Soay, where we were unable to land, owing to the high swell; but as

I was anxious to get some of the Petrels, we took the ship's boat and landed on Dun with some of the natives. This island, which forms the southern horn of the harbour, is the principal preserve of the Puffins, whose burrows cover the whole island, like a rabbit-warren. Immense numbers were sitting everywhere, flying up as we approached, and settling again behind us. They had only just begun laying; but I procured a few eggs, which, though quite fresh, were covered with dirt. A few Eiders were breeding here, though they are not numerous; and the down is never collected, as the young Gannets afford an abundant supply.

I expected to find the Petrels breeding near the top of the cliff; but none were at present visible, and I think it must have been too early in the year for eggs. There is no doubt, however, that the Fork-tailed Petrel does breed here, as I have seen eggs from St. Kilda, and Sir W. Milner procured the birds, though John Macgillivray, like myself, was disappointed in finding them. After searching for some time, I looked over a cliff and saw, far below me, a broad flat ledge on which hundreds of Fulmars were sitting among the stones. I descended with a rope we had brought from the 'Harpy,' as none of those the natives had were long enough. Two of the young men followed me, coming down hand over hand at a tremendous pace. As soon as the Fulmars were disturbed from their eggs, the Black-backed Gulls came swooping down, and carried them off in their beaks, much to the indignation of my companions, who hate the "Farspach" (as they call *Larus marinus*) with a deadly hatred, and practise all sorts of barbarities on them whenever they catch them, as they are terrible robbers of eggs. The young men seemed determined to have every Fulmar and every egg they could get, as they enjoyed the opportunity of harrying the rock, which belonged to some one else, and probably laid the blame of it on me afterwards.

All the cliffs here are divided among the inhabitants equally, and the boundaries are as carefully observed as if they were fields, so that no one can take eggs on the main island except from his own rock. Boreray, Soay and the Stacks are considered common property, and are harried occasionally by a party dispatched in the large boat for that purpose.

As it was now getting dark, and the wind rising fast, I thought it best to lose no time in getting on board again ; for though I was very sorry to leave the place without visiting all the islands of the group, yet I did not wish to be left there a month or more, and the weather looked so threatening that Capt. Bell was very unwilling to remain longer. We had much difficulty in getting into the boat, owing to the increasing swell, and after arriving on board ship were obliged to take leave of the people and put to sea without loss of time. Before long it was blowing a gale of wind from the south-east, and the weather continued so bad for five weeks that no boat could possibly have landed ; so I was obliged to content myself with what I had already seen, and leave a more thorough examination of the group to some future observer.

III.—On some New Species of New-Zealand Birds.

By WALTER BULLER, F.L.S., C.M.Z.S., &c.

Fam. CETHIIDÆ.

1. *XENICUS HAASTI*, sp. nov.

Upper surface pale olivaceous-brown, darkest on the crown ; tinged on the back and on the outer margin of the quills with olivaceous-green ; wing-coverts black, forming a conspicuous triangular spot ; under parts pale fulvous ; bill and feet dark brown ; irides yellow.

Length 3·5 in. ; wing from flexure 2 ; tail ·75 ; tarsus 1 ; middle toe and claw 1 ; hind toe and claw 1 ; bill, along the ridge ·375, along the edge of lower mandible ·625.

In structure this species approaches *X. longipes* ; but the claw of the hind toe is more strongly developed, exceeding the toe in length. It is an inhabitant of the Alpine heights of the South Island ; and I have named it in honour of its discoverer, Dr. Julius Haast, F.R.S., who forwarded me specimens for examination.

Dr. Hector found it frequenting the stunted vegetation growing among the loose mountain débris in the interior of the Otago Province ; and Mr. Buchanan, the artist to the Geological Survey, met with it on the Black Peak, at an elevation of 8000